Comfort Digisystem User manual

SecureStream Technology

Comfort Digisystem

Programmer DT05

North America / English

Comfort Audio
HEAR THE FUTURE

User manual

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1) Introduction to the Comfort Digisystem

Thank you for choosing Comfort Digisystem. Our products are easy to use and give you crystal clear sound.
Before using the product, please read this manual carefully.

The Comfort Digisystem products feature SecureStream Technology – a unique, patented digital technology allowing eavesdrop-secure radio transfer in real time.

Comfort Digisystem Programmer DT05

The optional professional tool Programmer DT05 can be used to configure the Receiver DT10.
The Programmer DT05 also makes it easy to test the Receiver DT10 with or without a hearing instrument.

2) Regulatory information

Comfort Digisystem products are not to be used as a substitute to the hearing aids and should be used in accordance with the specifications and recommendations provided by your physician.

NOTE! Max output > 130 dB SPL (Sound Pressure Level). Could be very dangerous for your hearing.
It is recommended that customers keep the volume control in the lowest position, when turning on the device. If not, the sound could potentially cause harm to the customers' hearing.

Comfort Audio is not liable for damages arising from usage of the equipment not in accordance with the instructions provided by Comfort Audio. Comfort Audio shall not be liable for performance problems and/or damages caused in any way by customer's modification of any part of the equipment.

Federal Communications Commission Statement, This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) this device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.

Programmer DT05 - FCC ID: UOJ-DG04T

Industry Canada,
This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions:
(1) this device may not cause interference, and
(2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :
(1) l'appareil ne doit pas produire de brouillage, et
(2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Model: DT05
IC: 6769A-DG04T

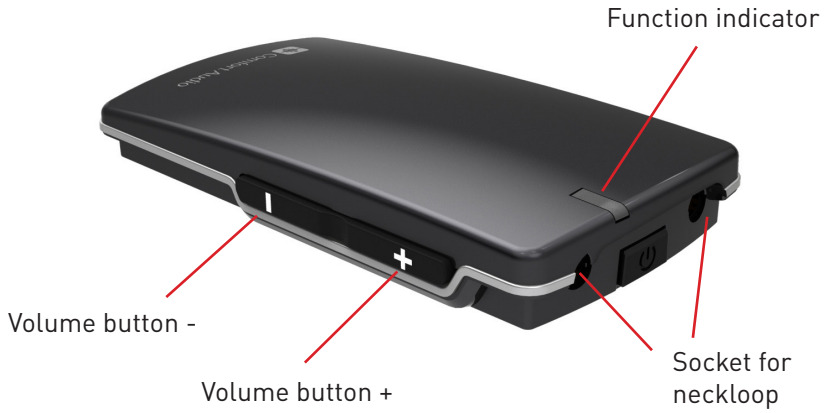
ETL
Conforms to UL Standard for Safety for Audio, Video and Similar electronic apparatus – Safety Requirements UL 60065, Issue:2003/06/30 Ed:7 Rev:2007/12/11
Certified to CSA Standard for Safety for Audio, Video and Similar electronic apparatus – Safety Requirements CAN/CSA-C22.2 No. 60065:03, Issued 2003/04/01 Ed:1 Amendment 1:2006
Intertek ETL Control number: 4002355

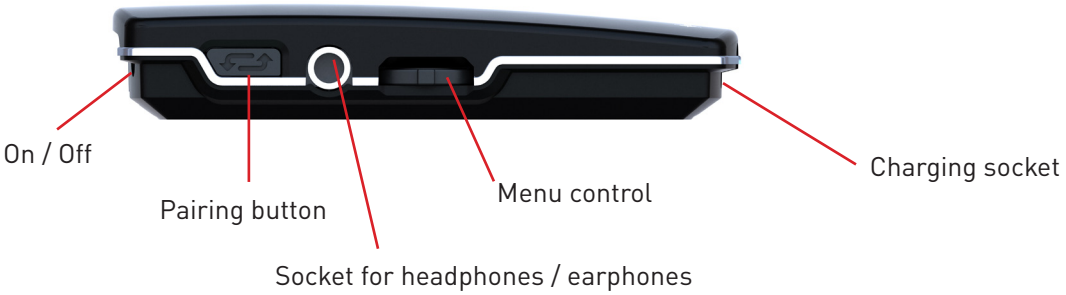
WARNING!
Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE:
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
-- Reorient or relocate the receiving antenna.
-- Increase the separation between the equipment and receiver.
-- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
-- Consult the dealer or an experienced radio/TV technician for help.

DANGER!
DO NOT USE the **COMFORT DIGISYSTEM products** if you have a **PACEMAKER** or other implanted device. The Comfort Digisystem products could cause the pacemaker or other implanted device to malfunction and cause serious injury or death.

3) Functions Programmer DT05 - optional professional tool





4) Included accessories

- Headphones
- Charger A11

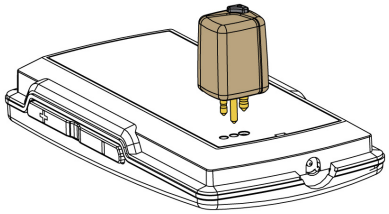
5) Programmer DT05

The Programmer DT05 is an optional professional tool that can be used both for configuring and test-listening of the DT10.

The Programmer DT05 can be used to configure one setting at a time in the Receiver DT10. Select the desired setting in the menu and double press the pairing button. The Receiver DT10 must be set to pairing mode.

The Programmer DT05 can also be used to configure all settings at the same time in a DT10. To do this, adjust all parameters in the DT05 and then select *Send all* on the DT05 menu. The Receiver DT10 must be set to pairing mode.

When using the Programmer DT05 for configuring the distance between the Programmer DT05 and the Receiver DT10 should not exceed 0.5 meters.



To listen to a DT10, plug it into the socket on the programmer and connect headphones or a neck-loop.

Menu control

Scroll up

Press / select

Scroll down

To access the menu, press the menu control and then scroll up or down.

Press the menu control to select.

6) Menu in the Programmer DT05

R enable
R
R+M enable
R+M
Tone ind.
Auto sleep
Pairing
Always on
Send all
Settings
- *Language*
- *Factory Reset*

About

Back (relates to both the main menu and submenus)
Here you can choose to return to the menu and to the main display.

R enable
Enables selection of R mode with the push-button on the Receiver DT10.

R
Adjusts the output level of the Receiver DT10 when using R mode.

R+M enable
Enables selection of R+M mode with the push-button on the Receiver DT10.

R+M
Adjusts the output level of the Receiver DT10 when using R+M mode.

Tone ind.
Activates acoustic indication tones when selected. Indication for pairing mode and pairing is always heard even if *Tone ind.* is disabled.

Auto sleep
When *Auto sleep* is enabled the Receiver DT10 goes into sleep mode if the Digisystem Microphone (transmitter), is turned off. This significantly reduces the power consumption of the Receiver DT10. The Receiver DT10 automatically starts again when you turn on your microphone.

Warning! If the Receiver DT10 is in sleep mode and another radio signal (with the same frequency that you are using) is present, the Receiver DT10 might start again automatically. This could cause a loud hissing noise and that's why *Auto sleep* should be used with caution.

Pairing

When *Pairing* is selected, the DT10 can be set to pairing mode by pressing the push-button for two seconds. If *Pairing* isn't selected, pairing mode cannot be enabled with the push-button. To override this, (if the Receiver DT10 needs to be reconfigured or if new pairing information needs to be received), press and hold the push-button on the Receiver DT10 for 2 seconds **within** 10 seconds of it having been connected to a hearing instrument or a Programmer DT05. This sets the Receiver DT10 to Pairing mode and it is then ready to receive new settings from the Programmer DT05.

The Receiver DT10 can receive but not transmit pairing information. To pair the Receiver DT10 with your Comfort Digisystem transmitter the Receiver DT10 must be connected either to your hearing instrument or to the Programmer DT05.

Example: Make a new eavesdrop secure configuration with one Microphone DM10 and two Receiver DT10s using the Programmer DT05:

1. Put one of the Receiver DT10s into the Programmer DT05.
2. Start the Programmer DT05 and connect head phones or a neck loop to be able to listen.
3. Activate pairing mode for the DT10 by pressing the push-button for 2 seconds.
   In the headphones/neckloop you receive an acoustic indication:
4. Start the Microphone DM10 and open the menu. Select *Communication/Pairing/New code key* and answer *Yes* if you want to create a new code key and transmit it.
5. The Receiver DT10 confirms successful pairing with an acoustic indication:
6. Remove the paired DT10 and connect the other DT10 into the Programmer DT05.
7. Activate pairing mode on the DT10 by pressing the push-button for 2 seconds.
   In the headphones/neckloop you receive an acoustic indication:
8. Open the menu on the DM10 and select *Communication/Pairing/Send info*.
9. The Receiver DT10 confirms successful pairing with an acoustic indication:

Always on

The setting *Always on*, disables the off-function of the push-button, leaving the Receiver DT10 always on. The Receiver DT10 is turned off when turning off the Hearing aid.

> If you enable *Always on* and at the same time disable *Pairing*, the push-button on the Receiver DT10 becomes inoperable.

Send all

To configure a Receiver DT10 with all settings in the display of the Programmer DT05 select *Send all*. If you choose *Send all*, you will receive the warning "All settings in DT10 will be overwritten". Only select *Yes* if you want to overwrite all data in your Receiver DT10.

Settings

HA scanner

The Frequency scanner is used for detecting how much interference there is from a hearing aid, within the frequency band that the Receiver DT10 is operating in.

Language

For selection of menu language.

Factory Reset

DT05: Resets the Programmer DT05 to its default settings.
DT10: Resets the Receiver DT10 to its default settings, which means that also all pairing information is deleted. The Receiver DT10 must be set to pairing mode in order to be reset.
To prevent eaves-dropping a new code key must be generated.

About

Software information.

7) Instruction HA scanner in Programmer DT05

The HA scanner is used for detecting how much interference there is from a hearing aid, within the frequency band that the Receiver DT10 is operating in.

How to use the scanner:

1. Enter Setting in the menu of the Programmer DT05 to activate the scanner.

2. Make sure that the hearing aid is on and that the Receiver DT10 is NOT attached.

3. Place the hearing aid close to the Programmer DT05 (see picture to the right) and find the position where the interference is worst.

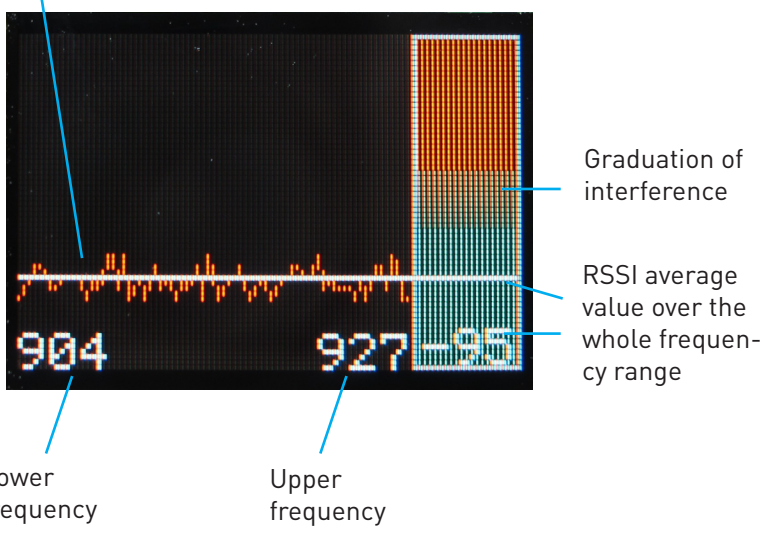
How to read the scanner:

The scanner reads and draws the RSSI-value on the frequencies between 904 and 927 MHz. (RSSI = Received Signal Strength Indicator)

The white horizental line indicates an average value of RSSI over the whole frequency range.

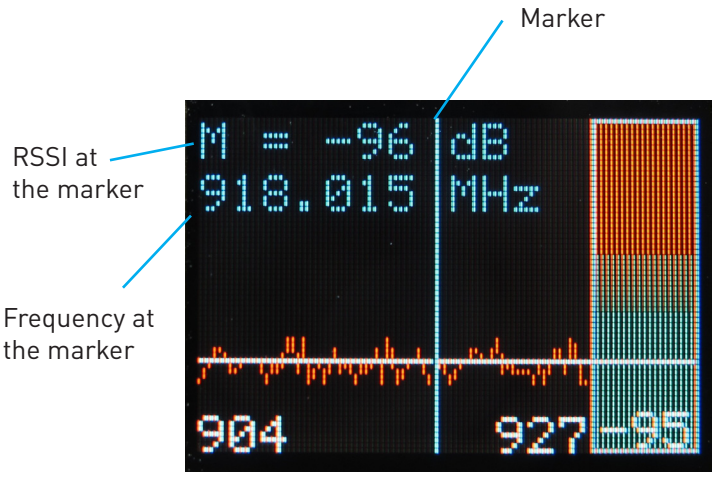
Use the graduation bar to the right to determine how strong the interference is. If the level of interference is above the green field, the Receiver DT10's ability to receive the signal from the transmitter will be reduced.

To facilitate the reading you can press the pairing button for 3 seconds. Then the drawing will freeze. Just press the button again to restart the scanning.



Reading of specific frequencies:

If you move the menu control up or down a marker (vertical line) will appear. This is to make a more precise reading of a specific frequency. Press the pairing button briefly to remove the marker.



8) Battery maintenance Programmer DT05

The rechargeable products in the Digisystem series are equipped with Li-Pol batteries, ie. the same type of batteries used for most mobile phones and laptop computers on the market today. These types of batteries are able to store large amount of energy in relation to their weight and volume.

The capacity of Li-Pol batteries diminishes during its life cycle. The battery type has no "memory effect", which would mean that you need fully discharge the battery before charging to minimize capacity loss. This means that you can just as well charge the battery often and little, as opposed to seldom and much. Special charging circuits in the Digisystem products protect batteries from overcharging.

The capacity of the Li-Pol batteries deteriorates faster when they subjected to deep discharge. Therefore, all products of the Digisystem are fitted with a function that automatically turns off the product well before deep discharge occurs. Deep discharge may still happen as the battery has a certain self-discharge. A product that is fully or partly charged will with enough time reach a state when the battery deep discharges, unless the charger is connected. To avoid this we recommend that the battery is charged at least every 6 months.

Please note:
Only use the charger supplied by Comfort Audio. Changing the battery without the assistance of an authorized dealer will void the Limited Warranty.

9) Technical data Programmer DT05

Range:	2 m
Dimensions:	2.91 x 1.54 x 0.51 inches (74 x 39 x 13 mm)
Weight:	1.23 oz. (35 g)

Conforms to ANSI/UL Std.60065

Certified to CAN/CSA Std.C22.2 No.60065:03

Intertek
4002355

The weights, dimensions, capacities, performance ratings and other data in Comfort Audio's brochures, prospectus, circulars, advertisements, price lists and instructions sheets are mentioned only as general information. They are only approximate and shall not bind Comfort Audio.

10) Radio range and channels

The transmitter and receiver have built-in antennas. The radio range between the units varies depending on the product and the particular environment you are in.
Like all radio systems, Comfort Digisystem communicates on specific channels. If you use two transmitters on the same channel or a neighbouring one, there may be interference. Other electronic equipment can also interfere with radio transmissions.
The channel that you use in your country is perhaps not permitted abroad. Always get in touch with your hearing aid provider in your country in order to find out which channels are permitted in different countries.
Comfort Audio is not liable for unauthorized use of radio waves, such as, but not limited to: interferences with police communication, or strategic communication, military installations etc.

11) Trouble shooting

The receiver does not start

1. Check that the correct listening program is selected on the hearing instrument.
2. Make sure the Receiver DT10 is correctly connected to the hearing instrument's audio shoe. Also check the connection between the audio shoe and the hearing instrument.
3. Make sure all connecting surfaces are clean.
4. Check/replace the hearing instrument's battery.
5. Remember to press the push-button briefly to switch the DT10 on.

Poor speech intelligibility

The distance between the transmitter and the receiver may be too long. The range is around 50 feet (15 meters).
The distance between the microphone and the talking person may also be too long; move the microphone closer to the talking person.
Try changing the channel/environment.

Poor range and interference

In some environments, such as in buildings with a lot of concrete, iron or sheer metal structures, the range may be reduced.
There may also be electronic equipment nearby causing interference. Change the channel.

No sound

Check that the transmitter and the receiver are set to the same channel.

Loud hissing noise

Check that the Comfort Digisystem units you are using are paired together.
If *Auto sleep* is enabled, the Receiver DT10 goes into sleep mode if there is no radio signal. But if another radio signal (with the same frequency you are using) is present, the Receiver DT10 might start again automatically. This could cause a loud hissing noise and that's why *Auto sleep* should be used with caution.

12) Service and warranty

Warranty extension

Comfort Audio Inc. warrants this product sold to the first end user (buyer) against defects in materials or workmanship for the time period and as set forth below. Pursuant to this Limited Warranty, Comfort Audio will, at its own option, either (a) repair the product or the parts determined to be defective, using new or refurbished parts, or (b) provide you with a new, or at our option, a refurbished unit. The repaired or exchanged unit is under warranty for the remainder of the original product's warranty period. The warranty does not include any other direct, indirect or consequential damage or loss, or any third party damages or losses.

This Limited Warranty is for a period of two years from the date of purchase as indicated by an original receipt from a Comfort Audio authorized retailer, dispenser or medical facility. For accessories and batteries, the warranty period is one year as of the date of delivery.

How to make a warranty claim

For warranty service, you must contact the Comfort Audio Customer Service listed below to obtain an RMA (Return Merchandise Authorization) number.
A description of the defect, your name, address and telephone number is required.

Ship the product freight prepaid via UPS or its equivalent, including a copy of the original purchase receipt, any cables, earphones and base/charger unit, in its original packaging or one that offers equal protection. Insure your shipment for loss or damage. Comfort Audio accepts no liability in case of damage or loss en route to our offices.

This Limited Warranty does not cover

Damage from misuse, neglect or normal wear and tear. Products that have been modified. Products purchased or serviced outside the territory. If you purchased your product outside the territory, see your retailer for warranty information.

13) Important safety instructions - Read these before using your product

1) Read these instructions.
2) Keep these instructions.
3) Heed all warnings.
4) Follow all instructions.
5) Do not use this apparatus near water.
6) Clean only with dry cloth.
7) Do not use near any heat sources such as radiators heat registers stoves, or other apparatus (including amplifiers) that produce heat.
8) Do not defeat the safety purpose of the polarized or grounding plug. A polarized plug has two blades with one wider than the other. A grounding plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit your electrical outlet, consult an electrician for replacement of the incorrect outlet — (only when using polarized plug).
9) Protect the power cord from being walked on or pinched particularly at plugs convenience receptacles. and the point where they exit from the apparatus.
10) Only use attachments/accessories specified by Comfort Audio AB.
11) Unplug this apparatus during lightning storms or when unused for long periods of time.
12) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way (such as if a liquid has been spilled on the apparatus, the apparatus has been subject to impact by another object or dropped or the apparatus has been exposed to rain or moisture) or does not operate normally.
13) Start listening at a low volume.
14) Too high a volume can seriously damage your hearing.
15) Don't dissasemble the product.
16) Should the product break open because of damage, service should only be done by qualified service personnel.
17) Never use a transmitter or receiver set to a non-permitted frequency.
Check with the frequency regulatory agency in the country where the equipment is to be used.
18) The product contains sensitive electronic equipment and must be handled carefully.
19) Never charge product in closed, unaired spaces such as handbags, cases or other closed storage bags.
20) Only use batteries and power supply specified by Comfort Audio AB.
21) You must not change the battery yourself; please contact your point of purchase.
22) CAUTION! Danger of explosion if battery is incorrectly replaced.
23) The product must not be exposed to excessive heat such as sunshine, open flames or the like.
24) Products include radio transmitters. Do not use products where the use of electronic equipment is not permitted, such as on airplanes.
25) The necklace should not be used if there is a risk of getting stuck, e.g. in a machine or other objects.
26) Keep small parts out of reach of children and animals. Choking hazard if swallowed.
27) Do not leave the product unloaded for too long, the battery could get damaged.
28) Do not keep the product connected to the charger if it is not used for a longer period.

Subject to change

Comfort Audio
HEAR THE FUTURE

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